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SOIL CONSERVATION SERVICE U.S. DEPARTMENT OF AGRICULTURE

Cooperating with

OREGON DEPARTMENT OF WATER RESOURCES

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: VIEW OF A SNOTEL DATA SITE IN THE SNOWY RANGE IN WYOMING. TALL CYLINDRICAL DEVICE IS A PRECIPITATION GAGE. SNOW PILLOWS ON THE GROUND NOT VISIBLE DUE TO SNOW COVER. SHELTER HOUSE, ANTENNA TOWER, ANTENNA, AND TEMPERATURE UNIT ARE VISIBLE BEHIND THE PRECIPITATION GAGE.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE **ADDRESS** A laska Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504 Arizona Room 3008, Federal Building, 230 N. First Ave., Phoenix, Arizona 85025 Colorado (N. Mex.) P. O. Box 17107, Denver, Colorado 80217 Idaho Room 345, 304 N. 8th. St., Boise, Idaho 83702 Montana P. O. Box 98, Bozeman, Montana 59715 Nevada P. O. Box 4850, Reno, Nevada 89505 1220 S. W. Third Ave., Portland, Oregon 97204 Oregon 4420 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138 Utah Washington 360 U. S. Court House, Spokane, Washington 99201 P. O. Box 2440, Casper, Wyoming 82602 Wyoming

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Snow Surveys Branch, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W, Calgary, Alberta T3C 1A6.



WATER SUPPLY OUTLOOK FOR OREGON

and FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued

MAY 1, 1979

Issued by

R. M. DAVIS

ADMINISTRATOR
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STATE CONSERVATIONIST SOIL CONSERVATION SERVICE PORTLAND OREGON

In Cooperation with

OREGON
DEPARTMENT
OF
WATER RESOURCES

Report prepared by

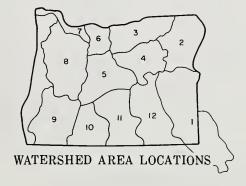
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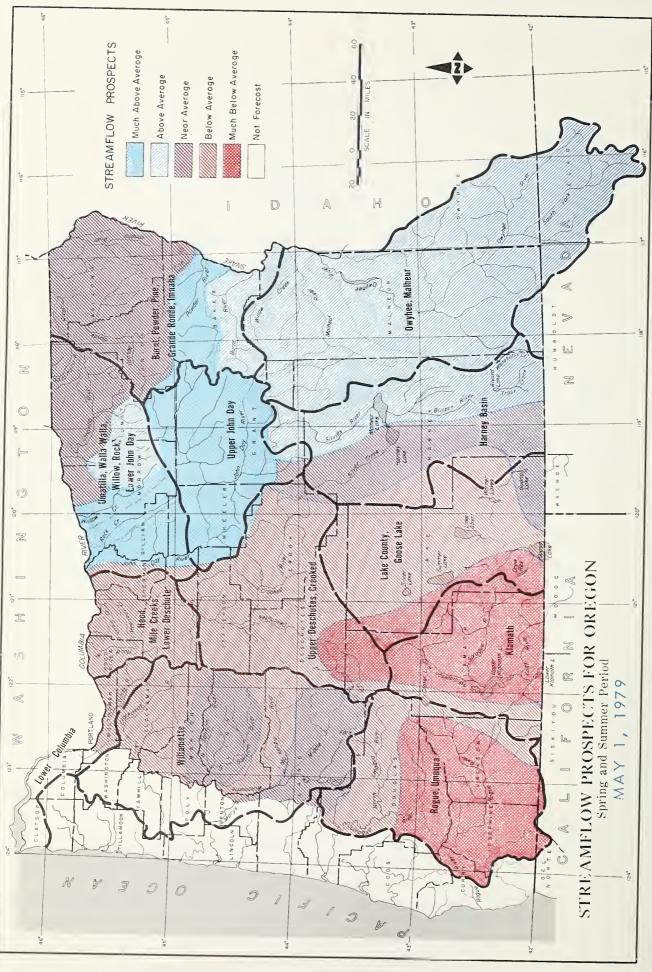
1220 S.W. THIRD AVENUE PORTLAND, OREGON 97204



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WATER SUPPLY OUTLOOK AND SUMMARY FOR OREGON

May 1, 1979

*	Water Supplies in Oregon this summer should be adequate in most	*
	areas. Shortages are probable for irrigators dependent upon direct	*
*	diversions in Jackson, Josephine and Klamath Counties. April	*
*	proved to be a wet month throughout the State and helped improve	*
*	the outlook especially on streams from the central Cascades north	*
*	to the Columbia River.	*

SNOW COVER

The snowpack continued to build at high elevations during April. Cool temperatures caused precipitation to fall as snow and delayed the melt that normally occurs during April. The snowpack is much above normal in most of eastern Oregon, near normal in the northern Cascades and much below normal in Klamath County and the southern Cascades.

PRECIPITATION

April brought much precipitation to Oregon. Rainfall was slightly above normal in Malheur County and much above average elsewhere in the State. Some stations in the Willamette Valley received as much rain during April as usually falls during April, May and June. Precipitation over the winter since last November has been generally below normal except in southeastern Oregon.

SOIL MOISTURE

Because of the April rains and some snow melt during March, mountain soil moisture is now near normal for this time of year.

RESERVOIR STORAGE

Stored water supplies are near normal or above in most irrigation reservoirs. Some reservoirs in southern Oregon will not fill. However, these reservoirs should provide adequate supplies of water except at Fish Lake and Fourmile Lake where supplies will be below average. Twenty-six major reservoirs are storing 2,567,500 acre feet compared to a normal of 2,593,300 acre feet.

STREAMFLOW

Streamflow was generally above average during April due to the heavy precipitation.

Forecasts of streamflow on representative Oregon streams are as follows:

STREAM	PERIOD	FORECAST % OF 1958-72 AVG.
Owyhee net Inflow Malheur nr. Drewsey Deschutes at Benham Falls Grande Ronde at La Grande Willamette, Mid. Fk. nr. Oakridg Upper Klamath Lake net Inflow Rogue at Raygold Silvies nr. Burns	May-Sept. May-Sept. May-Sept. May-Sept. e May-Sept. May-Sept. May-Sept. May-Sept.	169 135 82 98 95 52 65

This report contains data furnished by the Oregon Department of Water Resources, U.S. Geological Survey, NOAA National Weather Service and other cooperators.

OWYHEE, MALHEUR WATERSHEDS OREGON

GENERAL OUTLOOK

The water supply outlook for this area in still excellent. Streamflow forecasts are for volumes of 126% to 176% of average. The snowpack is still 118% to 181% of average. Precipitation for April was 110% of normal making seasonal precipitation about average. Storage in major reservoirs is above average. Soil moisture recharge is up to normal.



	THIS YEA	PAST RECORD			
FORECAST FORECAST			THOUSAND ACRE FEET		
Thousand Acre Feer	Percent of Average	PERIOD	Last Year	Average	
20.5 40 45 47 53 277 304	156 126 135 135 135 133 176	March-May May-July May-Sept. May-July May-Sept. May-July May-Sept.	199 227	13.1 32 33 35 40 157 180	
	20.5 40 45 47 53 277	FORECAST Thousand Acre Feet Average 20.5 156 40 126 45 135 47 135 53 133 277 176	FORECAST	FORECAST	

FORECAST DATE of LOW FLOW VALUES

RESERVOIR	STORAGE	(Thousand	Ac. Ft.	END OF MONTH
-----------	---------	-----------	---------	--------------

TOREONO! DATE OF LOW THOSE TRADES			VESTUARIU SIOUWAT (NO. 10. END OF MONTH				
EODE CAST BOWE	Low Flow	Stream will	Average Date	2505214012	Usable	Usable Storage		
FORECAST POINT	FORECAST POINT Value Second/Ft. Value Flow Value of Low Flow Value		RESERVOIR	Capacity	This Year	Last Year	Average C	
Owyhee near Rome	1000 250	May 30 June 30	May 24 June 20	Beulah Reservoir Bully Creek Owyhee Warmsprings	60.0 30.0 715.0 191.0	54.7 29.9 708.6 161.0	59.7 29.2 715.5 151.0	50.3 24.0 618.4 147.5

SOIL MOISTURE

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS

				(COMPARISON WITH PREVIOUS YEARS)				
RIVER BASIN	Number of	THIS YEAR'S as PERC	ENT OF:	RIVER BASIN and/or	Number of Courses		AR'S SNOW PERCENT OF	
	Stations	Last Year	Average C	SUB-WATERSHED	Averaged	Last Year	Average C	
Malheur River	2	190	100	Jordan Creek Malheur River Owyhee River	3 4 5	132 370 172	181 118 148	

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS

OREGON

GENERAL OUTLOOK

Good to excellent water supply is forecast for this area. Forecasts range from 93% to 131% of normal streamflow. Snowpack water is 84% to 125% of average on major watersheds. April precipitation was 156% of average with a seasonal total near average. Reported reservoir storage is above average. Mountain soil moisture is slightly above average.



BASIN. STREAM and/or FORECAST POINT Bear Near Wallowa Burnt near Hereford Catherine near Union Eagle Creek abv. Skull Creek	FORE Thousand Acre Feet 59 18.0 19.4 57	Percent of Average	FORECAST PERIOD May-Sept. May-July May-Sept.	THOUSAND A	AVERAGE OF THE STATE OF THE STA
Bear Near Wallowa Burnt near Hereford Catherine near Union	59 18.0 19.4	102 130 131	May-Sept. May-July	L ast Year	58
Burnt near Hereford Catherine near Union	18.0 19.4	130 131	May-July		
Catherine near Union	19.4	130 131	May-July		
				1	14.8
Eagle Creek abv. Skull Creek		108	May-Sept.		53
	155	102	May-July		152
	171	103	May-Sept.		166
Grande Ronde at La Grande	89	96	May-July	80	92
Hurricane near Joseph	94 46	98 105	May-Sept.	86	96 44
îmnaha at Imnaha	264	103	May-Sept. May-Sept.		253
Lostine near Lostine	123	105	May-Sept.		117
Powder near Sumpter	47	119	May-July		40
	50	122	May-Sept.		41
Wallowa, East Fork near Joseph	7.9	93	May-July		8.5
	10.2	95	May-Sept.		10.7
Wallowa, at Joseph Wolf Creek net Inflow	69	98	May-July		70
	8.3	109	May-June		7.6

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH SUMMARY OF SNUW MEASUKER (COMPARISON WITH PREVIOUS YEARS)

SUMMARY	of S	WOM	MEA	SUREMENTS	

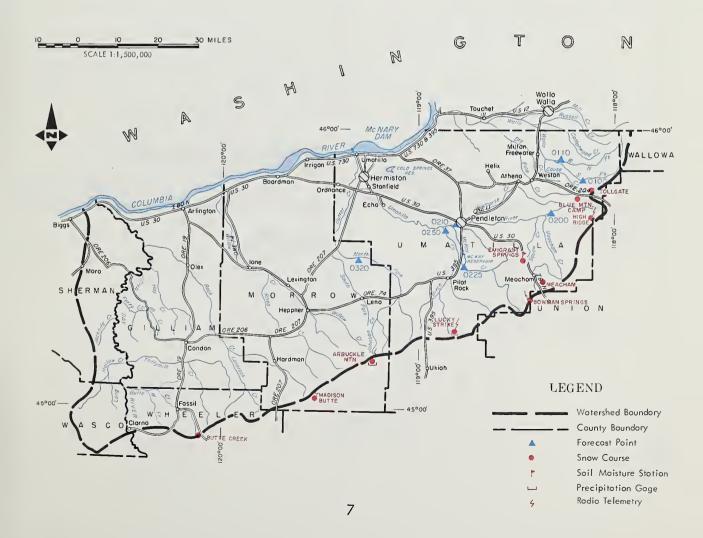
RESERVOIR	Usable Usable Storage		\rfloor [RIVER BASIN	Number of	THIS YEAR'S SNOW WATER AS PERCENT OF			
KESEKVOIK	Capacity	This Year	Last Year	Average ^C	IJ	and/or SUB-WATERSHED	Courses Averaged	Last Year	Average C
Phillips Lake Thief Valley Unity Wallowa Lake Wolf Creek	73.5 17.4 25.2 37.5 10.4	67.9 17.4 25.5 36.1 8.7	51.3 17.4 25.7 28.0 11.1	59.1 17.4 24.1 30.9		Burnt River Grande Ronde River above La Grande Powder River Wallowa, Imnaha, Catherine Creek	4 4 5 6	206 153 107	125 84 118
					S	OIL MOISTURE RIVER BASIN	Number of Stations	THIS YEAR'S as PERCI Last Year	MOISTURE ENT OF: Average ^C
						Burnt, Powder Grande Ronde, Catherine Creek, Imnaha River	2 3	96 108	106 106

UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS

OREGON

GENERAL OUTLOOK

This area can plan on excellent water supplies this summer. Forecasts range from 106% of average on the Walla Walla to 176% of average on Butter Creek. Mountain snow packs are 124% to 168% of average over the area. April precipitation was 156% of normal with seasonal precipitation being near average. Cold Springs and McKay Reservoirs have above average storage. Mountain soil moisture is recharged to normal for this time of year.



FORE Thousand Acre Feet	CAST Percent of	FORECAST	THOUSAND AG	TRE CEET		
Thousand Acre Feet	B			THOUSAND ACRE FEET		
	Average	PERIOD	Last Year	Average ^C		
12.5 42 49 75 54 6.0	142 107 108 110 106 176	May-Sept. May-July May-Sept. May-July May-Sept. May-July		8.8 39 45 68 51 3.4		
	42 49 75 54	42 107 49 108 75 110 54 106	42 107 May-July 49 108 May-Sept. 75 110 May-July 54 106 May-Sept.	42 107 May-July 49 108 May-Sept. 75 110 May-July 54 106 May-Sept.		

FORECAST DATE of LOW FLOW VALUES

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

IONEGASI DATE OF LOW	I LUTT TAL	013		VESEKANIK ZINKARE (I	iivusaiiu <i>i</i>	NG. 11./	END OF M	IUN I H
FORECAST POINT	Low Flow Value	Forecast Date Stream Will	Average Date of Low Flow	verage Date		Usable Storage		
FORECAST FOINT	Second/Ft.	Recede to Low Value		KESEKVOIK	Capacity	This Year	Last Year	Average C
Umatilla at Pendleton	550	May 31	May 22	Cold Springs McKay	50.0 73.8	49.0 68.1	49.5 68.5	47.8 55.0
				CHANNA DV of CNOW MI				

SOIL MOISTURE

SUMMARY of SNOW MEASUREMENTS

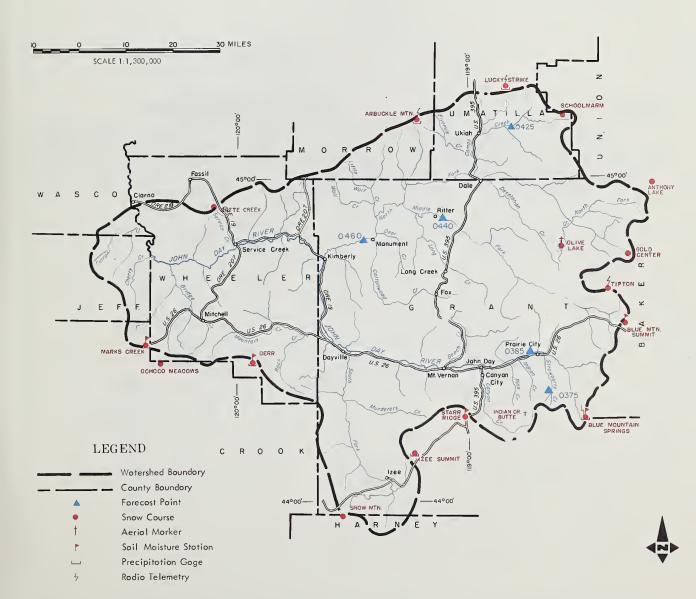
/0011010101			
(COMPARISON	WITH	PREVIOUS	YEARS)

RIVER BASIN	Number of	THIS YEAR'S as PERCI	MOISTURE ENT OF:	RIVER BASIN and/or	Number of Courses	THIS YE.	AR'S SNOW PERCENT OF
	Stations	Last Year	Average C	SUB-WATERSHED	Averaged	Last Year	Average C
Umatilla, Walla Walla, McKay Creek	3	101	97	McKay Creek Umatilla River Walla Walla River	3 3 2	488 305 296	168 147 124
-							

UPPER JOHN DAY WATERSHEDS OREGON

GENERAL OUTLOOK

The Upper John Day area will have very good water supplies. Streamflow will range from 121% to 134% of average. The May I snowpack was 151% to 160% of average. April was very wet, having 163% of normal precipitation. Seasonal precipitation has been average. Mountain soil moisture is recharged to normal levels.



TREAMFLOW FORECASTS		THIS YEA	PAST RECORD			
	FOR	CAST	FORECAST	THOUSAND ACRE FEET		
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average (
Camas Creek near Ukiah John Day, Middle Fork at Ritter John Day, North Fork at Monument Strawberry near Prairie City	21 90 93 415 432 8.0 8.7	128 134 133 122 122 123 121	May-July May-July May-Sept. May-July May-Sept. May-July May-Sept.		16.2 67 70 340 354 6.5 7.2	

SOIL MOISTURE

SUMMARY of SNOW MEASUREMENTS

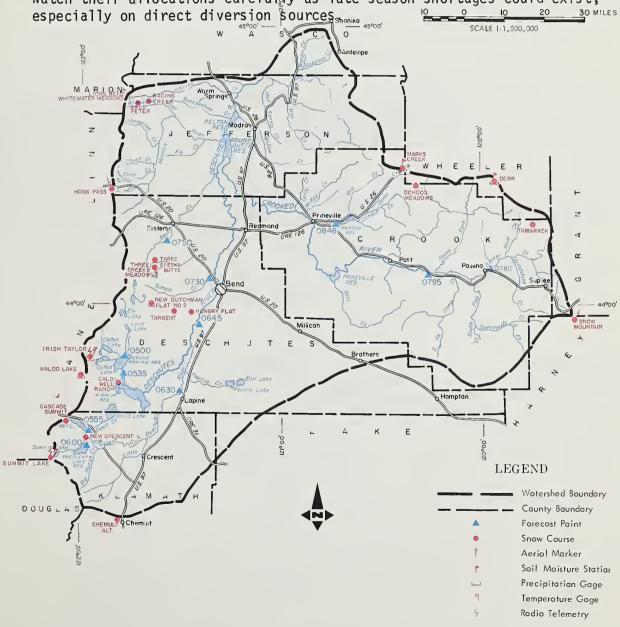
L MUISTURE				(COMPARISON WITH PREVIOUS YEARS)					
RIVER BASIN	Number of Stations	THIS YEAR' as PER	S MOISTURE CENT OF: Average C	RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YE WATER AS Last Year	AR'S SNOW PERCENT OF Average C		
John Day above Dayville John Day, North Fork	3 2	98	97 104	John Day, North Fork John Day abv. Dayville	7 4	289 419	160		
				4					

UPPER DESCHUTES, CROOKED WATERSHEDS

OREGON

GENERAL OUTLOOK

April was a very wet month with precipitation being reported at 195% of average. However, seasonal precipitation is only 85% of normal. The long range water supply forecasts are still for 55% to 82% of average streamflows on the east slope of the Cascades and 85% to 88% of average on the Crooked River watershed. The contribution from the April precipitation, being primarily rain, is already running off. The snowpack is below average at 61% to 80% on the Cascades drainages. Ochoco and Prineville reservoirs report above average storage so supplies from these sources should be adequate. Wickiup reservoir storage is above average but Crescent Lake and Crane Prairie are below average. Soil moisture is reported at 90% of normal. Managers should watch their allocations carefully as late season shortages could exist,



STREAMFLOW FORECASTS		THIS YEA	PAST RECORD		
	FORE	FORECAST		THOUSAND A	ACRE FEET
BASIN, STREAM and/or FORECAST POINT	RECAST POINT Thousand Acre Feet Percent of Average PERIO	PERIOD	Last Year	Average C	
Beaver Creek near Paulina	3.7	05	May July		4.4
seaver creek near rautina	3.9	85 85	May-July May-Sept.		4.4
Crane Prairie Reservoir total Inflow	44	69	May-July		64
State tratite Reservoir sour introv	71	68	May-Sept.		105
Crescent at Crescent Lake	8.6	55	May-July		15.6
	9.7	50	May-Sept.		19.6
Crooked near Post	27	85	May-Sept.		32
Deschutes at Benham Falls	220	78	May-July		281
	388	82	May-Sept.		471
Deschutes below Snow Creek	38	67	May-Sept.		56
Deschutes, Little near La Pine	33	55	May-July	1	53
	41	50	May-Sept.		63
Ochoco Reservoir net Inflow	8.1	88	May-Sept.		9.2
Squaw near Sisters	34	74	May-Sept.		46
Tumalo near Bend	29	74	May-Sept.		39
Deschutes at Bend	112		AugSept.		

FORECAST DATE of LOW FLOW VALUES

RESERVOIR STORAGE (Thousand Ac Ft) END OF MONTH

TOWERNS! DATE OF LOW	ILUN IAL	OLU		MESERANIK SINKARE (II	iousaliu i	nu. 1 (.)	END OF P	IONTH
FORECAST POINT	Low Flow Value	Ju cam min	Average Date of Low Flow	RESERVOIR	Usable	U	sable Stora	ge
TORECASTION	Second/Ft.	Recede to Low Flow Value	Value	KESEKVOIK	Capacity	This Year	Last Year_	Average C
Crane Prairie net Inflow Crooked R. near Post Deschutes at Bend Little Deschutes near La Pine 1/ Flow should not reach this level.	300 100 1500 400 200	1/ June 6 1/ 1/ June 13	July 15 June 1 July 1 June 7 July 8	Crane Prairie Crescent Lake Ochoco Prineville Wickiup	55.3 86.9 47.5 153.0 200.0	40.9 46.2 43.4 157.0 200.6	50.7 54.6 47.3 161.8 197.0	45.8 66.5 37.8 145.0 189.4
				CHMMADY of CNOW ME	ACUDEM	ENTO		

SOIL MOISTURE

SUMMARY of SNOW MEASUREMENTS

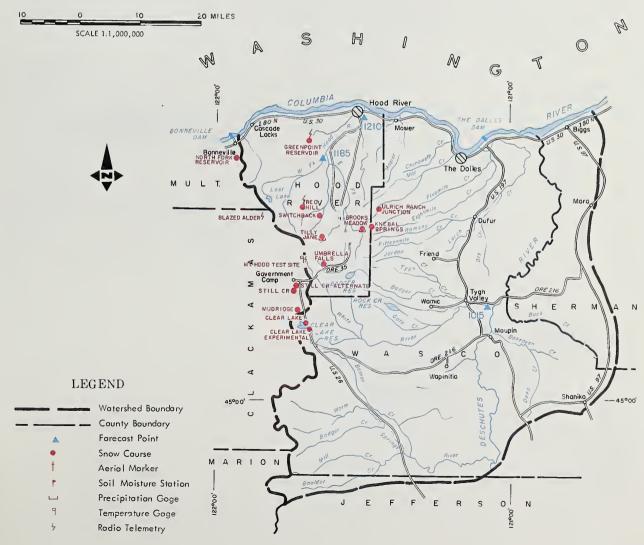
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RIVER BASIN	Number THIS YEAR'S MOISTURE as PERCENT OF:		CENT OF:	RIVER BASIN and/or	Number of Courses	THIS YEAR'S SNOW WATER AS PERCENT OF			
	Stations	Last Year	Average C	SUB-WATERSHED	Averaged	Last Year	Average C		
Crooked R., Upper Deschutes River	1	94	90	Crooked, Ochoco Deschutes abv. Wickiup Little Deschutes Tumalo & Squaw Crs.	2 4 3	117 122 126	 77 80 61		

HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

OREGON

GENERAL OUTLOOK

Water supplies in Hood and Wasco counties should be adequate this summer. The snowpack is now near normal. April brought cool temperatures and heavy precipitation. Precipitation was 160% of normal. This delayed the snow melt and caused the snowpack to continue to build. Streamflow forecasts are now expected to be 80% to 92% of average.



STREAMFLOW FORECASTS		THIS YEAR	PAST RECORD			
	FORE	CAST	FORECAST	THOUSAND ACRE FEET		
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average C	
Hood River near Hood River Hood, West Fork near Dee White below Tygh Valley	157 196 74 98 62 76	83 84 87 92 79 80	May-July May-Sept. May-July May-Sept. May-July May-Sept.		189 233 85 107 79 94	

FORECAST DATE of LOW FLOW VALUES

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH Usable Usable Storage

	Low Flow	Forecast Date Stream Will	Average Date	NEGERICON SIGNAGE (Usable		sable Stor	
FORECAST POINT	Value Second/Ft.	Recede to Low Flow Value	of Low Flow Value	RESERVOIR	Capacity	This Year	Last Year	Average C
Clear Branch Inflow	* 30	July 15-31	**39	Clear Lake (Wasco)	11.9	1.5	4.7	6.7
* Average cfs fore- cast to flow for this two-week period.								
<pre>** Average cfs for period of record.</pre>								
				SUMMARY OF SNOW ME (COMPARISON WITH PREVIOUS	YEARS)		THIS YEA	R'S SNOW
				RIVER BASIN and/or SUB-WATERSHED	Number Course Averag	es WA	TEP. AS PE	Average C
				Hood River Mile Creeks White River	3 3		233 233	96 96
	=							

LOWER COLUMBIA WATERSHEDS OREGON

GENERAL OUTLOOK

April precipitation improved the streamflow forecasts on the Columbia. The Columbia at The Dalles is forecast to flow 82% of average during the May-July period. This is 3% above last month's outlook. The Sandy River forecast is for 85% of normal flow.



SUMMARY OF SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

(COMPANISON WITH	T PKEVIOUS IE	-AR3/				
RIVER B			THIS YEAR'S SNOW WATER AS PERCENT OF			
SUB-WATER	SHED	Averaged	Last Year	Average C		
Sandy River		2	216	96		

STREAMFLOW FORECASTS		THIS YEA	PAST RECORD		
	FORE	CAST	FORECAST	THOUSAND A	CRE FEET
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average C
Columbia at The Dalles Sandy River near Marmot	62,000 74,000 192 245	82 81 85 87	May-July May-Sept. May-July May-Sept.		76,815 91,550 227 282

HISTORICAL DATA (Columbia River at The Dalles)

	9	STREAMFLOW ^d (1,000 A F.	REGULATED PEAK		
YEAR	APR - SEPT.	APR - JUNE	MAY — JUNE	(1,000 c.f.s)	DATE
1958	97,700	72,000	58,600	593	· May 31
1959	112,500	71,900	58,900	555	June 23
1960	97,000	64,000	48,000	442	June 6
1961	101,400	74,400	64,000	699	June 8
1962	94,600	64,100	49,200	460	June 5
1963	87,000	56,300	46,200	437	June 18
1964	109,020	70,739	61,313	662	June 18
1965	114,137	80,024	62,477	520	June 9
1966	87,268	58,120	45,922	396	June 12
1967	107,771	72,408	65,112	622	June 10
1968	89,000	55,500	47,900	404	June 13
1969	112,300	85,700	63,800	515	May 15
1970	88,100	62,800	55,200	425	May 28
1971	122,900	88,400	73,700	557	May 13
1972	134,700	96,400	81,400	619	June 20
1958-72 Avg.	104,300	72,900	59,900	529	

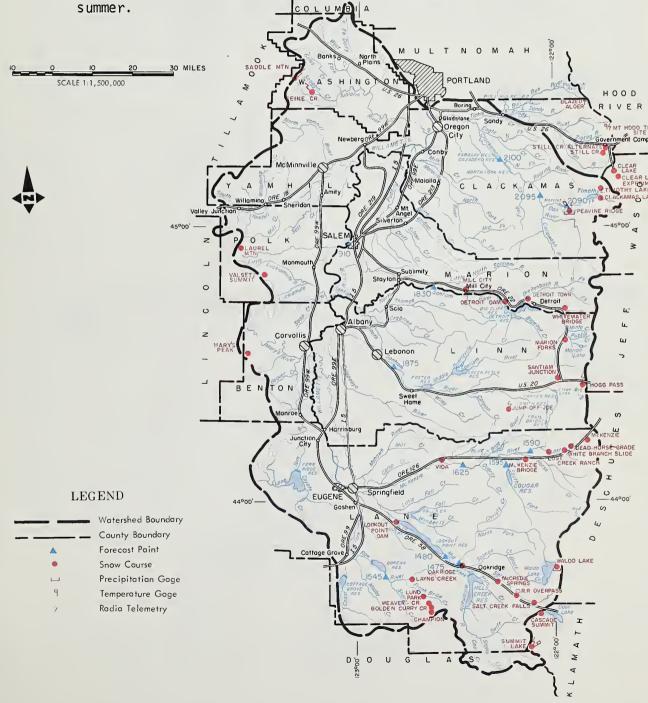
LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

				DRAINA	GE DISTRICT PUMI	PHOUSE		
VANCOUVER	FLOW AT	SANDY	SAUVIE ISL.	SCAPPOOSE	DEER ISL.	RAINIER	BEAVER	WOODSON
GAGE	THE DALLES				RIVER MILES			
(Weather Bu.)	(1,000 c.f.s)	118.9	96.0	91.0	77. 0	62.0	52.0	47.0
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.5
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32 (1972)	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	. 14.7	13.0
30	943	36.6	29.5	28.5	24.3	18.1	14.0	12.4
29	897	35.5	28.5	27.7	23.7	17.5	13.4	11.8
28	853	34.3	27.5	26.7	22.8	17.0	13.0	11.4
27 (1956)	811	33.0	26.5	25.6	21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	, 13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	15.5	12.1	10.2	9.4
19	534	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	501	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	479	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.0	10.5	9.3	8.7

WATER SUPPLY OUTLOOK WILLAMETTE WATERSHEDS OREGON

GENERAL OUTLOOK

Water supplies are expected to be adequate in the Willamette Valley. Although the snowpack is below average in the Cascades, spring precipitation during April was very heavy at 135% of normal. Some stations reported as much rain during April as is usually received during April, May and June. Streamflows are expected to range from 80%, on the Clackamas, to 95%, on the Willamette, of normal this



TREAMFLOW FORECASTS		THIS YEAR		PAST	RECORD
	FORE	CAST	FORECAST	THOUSAND	ACRE FEET
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average (
	0.50	00			
Clackamas at Estacada	358 469	80 83	May-July		447 562
Clackamas above Three Lynx	295	86	May-Sept. May-July		343
Clackallas above tillee Lynx	388	88	May-Sept.		440
McKenzie at McKenzie Bridge	271	82	May-July		329
•	404	85	May-Sept.		474
McKenzie near Vida	602	84	May-July		720
W	818	86	May-Sept.		947
McKenzie, So. Fork near Rainbow	118	84 88	May-July		140 169
Oak Grove Fork above Power Intake	82	93	May-Sept. May-July		89
our diove fork above lower litture	121	94	May-Sept.		128
Row near Dorena	48	90	May-July		53
	52	90	May-Sept.		58
Santiam, North at Mehama	444	90	May-July	ĺ	493
	540	90	May-Sept.		600
Santiam, South at Waterloo	291	90	May-July		323 382
Willamette, Mid. Fk. blw. N. Fk. nr. Oakridge	344 439	90 95	May-July	316 ⁻	382 462
will affecte, Mid. Fk. Diw. N. Fk. Hr. Dakridge	534	95	May-Sept.	431	562
Willamette, No. Fk. of Mid. Fk. near Oakridge	111	92	May-July	1	121
William Cock, Nov 1 No or 1 No	128	92	May-Sept.		141
Willamette at Salem	2,357	90	May-July		2,619
	2,848	90	May-Sept.		3,165

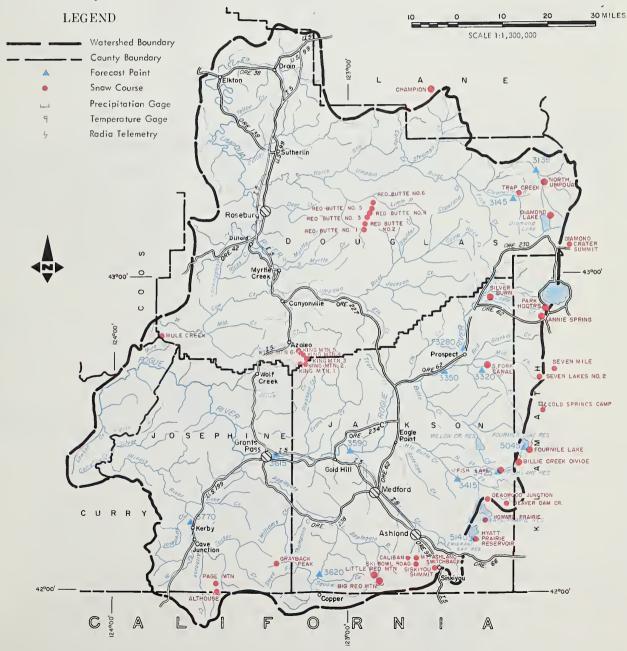
SHMMARY of SNOW MEASHREMENTS

OMPARISON WITH PREVIOUS Y	Number of		AR'S SNOW		Usable	Us	able Stora	ge
and/or SUB-WATERSHED	Courses Averaged	Last Year	PERCENT OF Average C	RESERVOIR	Capacity	This Year	Last Year	Average 6
Clackamas River McKenzie River Row River Santiam River Willamette, Mid.Fk.	2 3 2 3 3	209 192 241 169	95 • 65 • 72 62 81	Blue River Cottage Grove Cougar Detroit Dorena Fall Creek Fern Ridge Foster Green Peter Hills Creek Lookout Point Timothy Lake Henry Hagg Lake * Multiple purpose reservoirspace reserved primarily for flood runoff.	85.6* 30.0* 155.2* 299.9* 70.5* 115.0* 94.2* 270.0* 200.0* 337.2* 61.7 53.0	73.4 24.1 135.6 275.3 53.9 99.0 95.3 7.6 231.6 276.2 299.4 40.6 53.6	59.7 23.7 94.1 172.2 55.6 74.0 77.8 11.6 158.3 147.3 143.1 56.6 53.5	74.9 23.4 109.2 231.2 55.7 95.2 83.9 16.3 209.1 146.3 227.4 60.4

ROGUE, UMPQUA, WATERSHEDS OREGON

GENERAL OUTLOOK

Jackson, Josephine and Douglas counties will have below average water supplies available this summer. Talent Irrigation District users are the exception because of good reservoir supplies. The snowpack is extremely poor on Umpqua, Rogue and Butte Creek drainages. April was a very wet month and precipitation amounts were 175% of normal. This helped the situation considerably. Streamflows this summer are expected to range from 65% on the Rogue to 85% of average on the Clearwater. Forecasts assume normal weather conditions from May 1 to July 31.



Acre Feer Average Average Average Average Average Average Average Average	FREAMFLOW FORECASTS		THIS YEAR	3	PAST I	RECORD
Applegate near Copper		FORE	CAST	FORECAST	THOUSAND A	CRE FEET
State	BASIN, STREAM and/or FORECAST POINT			PERIOD	Last Year	Average (
Clearwater above Trap Creek	Applegate near Copper			May-July		81
Fourmile Lake net Inflow Hyatt Reservoir net Inflow Illinois River near Kerby Little Butte, N. Fk. at Fish Lake nr. Lake Cr. Little Butte, S. Fk. near Lake Creek Rogue above Prospect Rogue, South Fork near Prospect Rogue at Raygold near Central Point Rogue at Grants Pass 2.5 82 May-July 80 May-July 91 68 70 May-Sept. 97 May-Sept. 111 12.1 75 May-Sept. 118 64 May-July 189 67 May-Sept. 31 68 May-July 36 65 May-Sept. 320 65 May-Sept. 320 65 May-Sept. 320 65 May-Sept. 340 86 May-Sept. 345 493 86 86 87 88 882 May-July 91 88 88 88 May-July 96 88 88 89 89 89 80 80 80 80 80 80 80 80 80 80 80 80 80						87
1.7 80 May-July 91 92 93 94 94 95 95 97 96 97 97 98 98 99 99 99 99			85			57
11		l .				3.0
11						2.2
Little Butte, N. Fk. at Fish Lake nr. Lake Cr. Little Butte, S. Fk. near Lake Creek Little Butte, S. Fk. near Lake Creek Rogue above Prospect Rogue, South Fork near Prospect Rogue at Raygold near Central Point Rogue at Grants Pass Little Butte, N. Fk. at Fish Lake nr. Lake Cr. 8.6 75 May-Sept. 11 12.1 75 May-Sept. 18 64 May-July 18 65 May-Sept. 36 65 May-Sept. 36 65 May-Sept. 37 46 May-Sept. 46 May-Sept. 47 48 Rogue at Grants Pass Rogue at Grants Pass	Illinois River near Kerby					
12.1		1	70		}	97
13.6			75			11.5
ogue above Prospect 118 64 May-July 184 159 67 May-Sept. 239 68 May-July 46 65 May-Sept. 56 67 May-Sept. 56 68 May-July 345 493 65 May-Sept. 507 648 648 65 May-Sept. 507 648 65 May-Sept. 507 648 65 May-Sept. 627	ittle Butte, S. Fk. near Lake Creek		75			16.1
159						18.4
Rogue, South Fork near Prospect 31 68 May-July 36 65 May-Sept. Rogue at Raygold near Central Point 320 65 May-July 421 65 May-Sept. 80 648 65 May-Sept. 80 648 65 May-Sept. 80 65 May-Sept. 80 65 May-Sept. 80 627	Rogue above Prospect					184
36 65 May-Sept. 56 Sogue at Raygold near Central Point 320 65 May-July 345 493 421 65 May-Sept. 507 648 Sogue at Grants Pass 408 65 May-Sept. 627			67			239
Rogue at Raygold near Central Point 320 65 May-July 345 493 421 65 May-Sept. 507 648 627	Rogue, South Fork near Prospect		68		İ	
421 65 May-Sept. 507 648 logue at Grants Pass 408 65 May-Sept. 627			65			
logue at Grants Pass 408 65 May-Sept. 627	logue at Raygold near Central Point		65			
					507	
Impoua. No. blw. Lemolo Res. nr. loketee Falls I 100 72 May-Sept. 139	logue at Grants Pass					
72 1.00 3250	Impqua, No. blw. Lemolo Res. nr. loketee falls	100	72	May-Sept.	1	139

FORECAST DATE of LOW FLOW VALUES

RESERVOIR	STORAGE	(Thousand	Ac. Ft.) END OF MONTH
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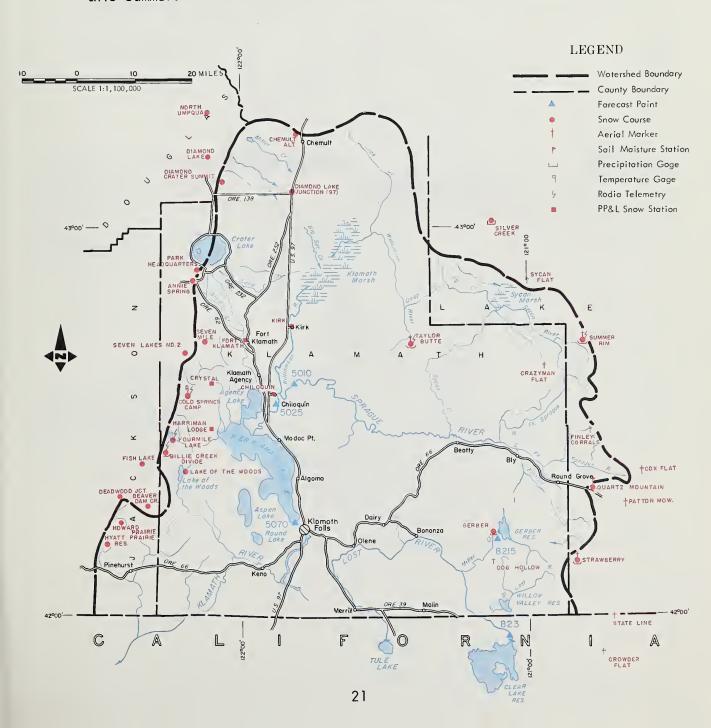
	Low Flow	Forecast Date Stream Will	Average Date	RESERVOIR	Usable	U	sable Stora	age
FORECAST POINT	Value Second/Ft.	Recede to Low Flow Value	of Low Flow Value	RESERVOIR	Capacity	This Year	Last Year	Average C
Little Butte Creek, South Fork	100	May 15	May 27	Emigrant Lake Fish Lake Fourmile Lake Howard Prairie Hyatt Prairie Lost Creek	39.0 8.0 16.1 60.0 16.1 315.0	39.0 5.8 8.9 51.8 15.7 303.4	38.8 5.3 8.5 48.1 14.0	37.1 6.4 11.5 52.8 14.6
				SUMMARY OF SNOW ME (COMPARISON WITH PREVIOUS RIVER BASIN and/or SUB-WATERSHED	ASUREMI YEARS) Number Cours Average	of WA	THIS YEAR TER AS PE	R'S SNOW ERCENT OF Average C
				Applegate Bear Creek Butte Creek Illinois River North Umpqua Rogue River	 2 4 3 4	1	73 200 14 95	 66 36 31 53

WATER SUPPLY OUTLOOK KLAMATH WATERSHEDS

OREGON

GENERAL OUTLOOK

Only water users with access to reservoired water in Klamath County will have adequate water this summer. Potential shortages exist for all other users. The mountain snowpack is very poor except for one snow course south of Clear Lake in California. April was a wet month however, bringing precipitation 165% of average. Streamflows are forecast to be around 50% of average above Klamath Lake and 75% at Clear Lake this summer.



TREAMFLOW FORECASTS		THIS YEA	R	PAST	RECORO
	FORE	CAST	FORECAST	THOUSANO	ACRE FEET
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average C
Clear Lake Reservoir Inflow Gerber Reservoir Inflow Sprague near Chiloquin Upper Klamath Lake net Inflow Williamson below Sprague River	11.8 2.9 96 184 138	78 60 58 52 48	May-Sept. May-Sept. May-Sept. May-Sept. May-Sept.	339 218	15.1 4.8 166 353 287

SOIL MOISTURE

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

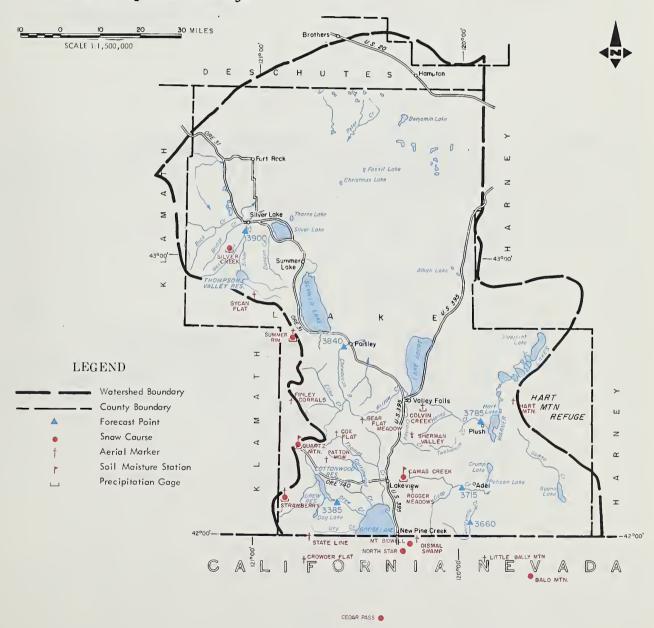
RIVER BASIN	of	as PER	CENT OF:	RESERVOIR	Usable		Doddie Ston	age.
KIVEK BASIK	Stations	Last Year	Average C		Capacity	This Year	Last Year	Average C
Upper Klamath	1	125	89	Clear Lake Gerber Upper Klamath Lake	440.2 94.0 584.0	180.1 48.3 484.7	229.7 68.0 488.9	76.8
				SUMMARY OF SNOW ME (COMPARISON WITH PREVIOUS RIVER BASIN and/or SUB-WATERSHEO	ASUREME YEARS) Number Cours Averag	of WA	THIS YEAR TER AS PE st Year	R'S SNOW ERCENT OF Average C
				Lost River Sprague River Upper Klamath Williamson River	2 3 6 3		117 99 78 114	117 81 56 43

Number THIS YEAR'S MOISTURE

LAKE COUNTY, GOOSE LAKE WATERSHEDS OREGON

GENERAL OUTLOOK

Lake County has good water supply prospects in the eastern half of the county and in those areas of the western half that have stored water available. Users on streams west and northwest of Lakeview that depend on direct diversions will have below normal supplies available. Streamflow on Silver Creek, Chewaucan River and Drews Creek will be much below normal. The snowpack is above normal on Deep Creek and below average elsewhere. April was a wet month, bringing precipitation amounts 1½ times average.



MTM MIOA

STREAMFLOW FORECASTS		THIS YEA	R	PAST	RECORD	
	FOR	CAST	FORECAST	THOUSAND ACRE FEET		
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average ^C	
Chewaucan near Paisley Deep above Adel Drews Reservoir net Inflow Honey Creek near Plush Silver Creek near Silver Lake Twentymile near Adel	34 38 40 41 5.8 9.0 9.1 6.4 10.5	61 63 92 92 60 80 60 95	May-July May-Sept. May-July May-Sept. May-July May-July May-July May-Sept. May-July May-Sept.	50 55	56 60 43 45 9.7 11.3 11.4 10.7	

SOIL MOISTURE

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH Usable Storage

DOIL MOIOTORE				WESERAOUK STOWAGE (CIAD OF	11011111
RIVER BASIN	Number of	THIS YEAR'S	MOISTURE	RESERVOIR	Usable		Usable Stor	age
NIVEN BASIN	Stations	Last Year	Average C	RESERVOIR	Capacity	This Year	Last Year	Average C
Chewaucan, Silver Creek, Drew Creek Honey, Deep, 20-Mi. Cr.	1	125 106	89 102	Cottonwood Drews Thompson Valley	8.7 63.0 19.5	6.1 46.6 10.6	58.0	6.2 59.0
				SUMMARY OF SNOW MI (COMPARISON WITH PREVIOU RIVER BASIN and/or SUB-WATERSHED	S YEARS) Numb	er of rses	THIS YEA WATER AS P Last Year	R'S SNOW ERCENT OF Average C
				Chewaucan River Deep Creek Drew Creek Honey Creek Silver Creek Twentymile Creek		3 2 2 2 1 1	99 122 	81 117 0 26 0

⁽a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

HARNEY BASIN WATERSHEDS

OREGON

GENERAL OUTLOOK

Excellent water supplies should be available this summer in Harney County. Snow melt has been delayed somewhat by cool April temperatures. Precipitation was heavy during April. The 165% of average reported during the month brought the winter total to 116% of normal. Snow cover is 150% of normal on the Silvies drainage and should be above average in the Steens although no measurements were taken. Streamflows this summer will range from 115% on Silver Creek up to

150% on Trout Creek. 30 MILES SCALE 1:1,500,000 IZEE T + LOGAN VALLEY Izee o R 0 0 IOLEWIK ¥ 4030 DESCHUTES 43°00' CATLOW HART MOUNTAIN REFUGE VALLEY LEGEND Wotershed Boundary County Boundary Forecost Point Snow Course OISASTER PEAK Aeriol Morker D M E A A Soil Moisture Station Precipitation Goge Rodio Telemetry 25

STREAMFLOW FORECASTS	ſ	THIS YEA	R	PAST	RECORD	
	FORE	CAST	FORECAST	THOUSAND ACRE FEET		
BASIN, STREAM and/or FORECAST POINT	Thousand Acre Feet	Percent of Average	PERIOD	Last Year	Average	
Donner und Blitzen near Frenchglen Silver near Riley Silvies River near Burns Trout Creek near Denio	52 57 5.9 45 47 8.7 9.3	138 136 115 136 136 150 150	May-July May-Sept. May-July May-July May-Sept. May-July May-Sept.	33 37	37 42 5.1 33 35 5.8 6.2	

SOIL MOISTURE

SUMMARY OF SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

THIS YEAR'S MOISTURE as PERCENT OF: THIS YEAR'S SNOW WATER AS PERCENT OF Number of Stations Number of Courses Averaged RIVER BASIN RIVER BASIN and/or SUB-WATERSHED Average C Last Year Average C Last Year 102 Donner und Blitzen R. 1 100 Silvies River, Silver Cr. Trout Cr., Donner und Blitzen River Silver Creek 147 4 485 Silvies River Trout Creek

SNOW	1	HIS YEA	R	PAST R	ECORD	WONS	Т	HIS YEA	R	PAST R	ECORD
DRAINAGE BASIN and/or SNOW COURSE	Dote of	Snow Depth	Woter Cont.	(Incl	nes)	DRAINAGE BASIN and/or SNOW COURSE	Date of	Snow Depth	Woter Cant.	(Incl	nes)
OWYHEE, MALHEUR WATERSHEDS Antelope Ridge (Ida.) Battle Creek (Nev.) Big Bend (Nev.) Blue Mountain Springs Blue Mtn. Spgs. Plw.(T) Blue Mtn. Spgs. Plw.(S) Blue Mtn. Spgs. Plw.(S) Blue Mtn. Spgs. Plw.(M) Buck Pasture * Buckskin, Lower (Nev.) Buckskin, Lower (Nev.) Bull Basin (Ida.) * Bully Creek * Call Meadows * Columbia Basin (Nev.) Cottonwood-Indian * Disaster Peak (Nev.) Eldorado Pass Fawn Creek (Nev.) Fish Creek * Fish Creek Pillow(S) Fish Creek Pillow(M) Flag Prairie *	Dote	Snow Depth (In.) e e e	Woter	Water (Inc	Content	BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS Aneroid Lake #1 Aneroid Lake #2 Anthony Lake Bald Mountain (OR) * Beaver Reservoir (Rev.) Beaver Rese. Pillow (S) Beaver Rese. Pillow (M) Big Sheep * Blue Mtn. Summit Bourne Bourne Pillow (T) Bourne Pillow (M) County Line County Line Pillow (M) County Line Pillow (M) Dooley Mountain Eilertson Meadows Eilertson Mdws.Plw.(S) Eilertson Mdws.Plw.(M) Eldorado Pass Gold Center Gold Center	Date of Survey 4/26 4/26 4/25 4/27 4/30 4/30 4/27 4/27 4/27 4/27 4/27 4/27 4/27 4/27	76 69 83 81 24 18 58 7 26 TR 0 TR 0 3 18 16 0 16 8	31.2 27.8 31.7 35.6 8.4 5.3 23.2 2.5 11.1 21.6 16.9 21.1 0.0 0.0 0.0 0.9 7.2 5.8 4.2 0.0 7.0 3.4	Water C (Incl (Incl (Incl (Incl (Incl (Incl (Incl (Incl (Incl (Incl (Incl (Inc	ontent nes)
Fox Creek (Nev.) Fry Canyon (Nev.) Gold Creek (Nev.) Granite Peak (Nev.) Hyde Pasture (Ida.) * Jack Creek, Lower (Nev.) Jack Creek, Upper (Nev.) Jack Peak (Nev.) Lake Creek R.S. Lake Creek R.S. Plw.(T) Lake Creek R.S. Plw.(S) Lake Creek R.S. Plw.(M) Laurel Draw (Nev.) Logan Valley * Lookout Butte * Louse Canyon * Martin Creek (Nev.) Merritt Mountain (Nev.) * Midas (Nev.) * Mud Flat (Ida.) Oregon Canyon * Quinn Ridge (Nev.) * Red Canyon (Ida.) * Rock Spring Plw.(S) Rock Spring Plw.(S) Rock Spring Plw.(M) Rodeo Flat (Nev.)	4/26 4/26 4/26 4/26 4/26 4/26 4/26 4/26	e 0 e e e e e e e e e e e e e e e e e e	0.0 9.0 27.4 2.6 5.6 4.7 5.6	0.0 4.2 30.2 0.0 0.0 0.0	1.5 1.4b 4.7b 26.8 3.4b 1.6b	Gold Center Pillow(M) Goodrich Lake Little Alps Little Antone Little Antone Little Antone (Alt.) Lucky Strike Lucky Strike Pillow(T) Lucky Strike Pillow(S) Lucky Strike Pillow(M) Meacham Mirror Lake * Moss Spring Moss Spring Pillow(S) Moss Spring Pillow(M) Mt. Howard Schneider Meadow Schneider Meadow Plw.(S) Schneider Meadow Plw.(M) Schoolmarm Standley * Taylor Green Taylor Green Pillow(T) Taylor Green Pillow(S) Taylor Green Pillow(M) Tipton Tipton Snow Pillow(M)	4/27 4/25 4/25 4/27	75 68 65 58 61 0 98 44 52 0 26	4.1 15.3 0.0 2.8 16.2 8.7 6.2 9.9 3.8 71.8 32.8 30.7 25.8 26.8 24.0 0.0 43.1 19.0 23.8 23.5 21.1 0.0	18.8 0.0 42.1 9.6 15.6 0.0 7.5 10.0	14.5
76 Creek (Nèv.) * Silver City (Ida.) Silver City (Ida.) * Silvies * Silvies Silvies Pillow(S) Silvies Pillow(M) South Mountain #2 (Ida.) South Mtn. #2 Plw.(T) Stag Mountain (Nev.) * Stinking Water Succor Creek (Ida.) * Taylor Canyon (Nev.) Toe Jam (Nev.) * Tremewan Ranch (Nev.) * Tremewan Ranch (Nev.) * Trout Creek * "V" Lake * Vaught Ranch (Ida.) * War Eagle (Ida.) *	4/26 4/30 5/1 5/1 4/26 4/26	26 26 26 26 26 26 27 20 20 20 20 20 20 20 20 20 20 20 20 20	11.3 12.9 11.6 10.2 0.0 0.0	8.8 0.0 0.0	7.1b 0.5	Tollgate TV Ridge * West Eagle Meadows * Wolf Creek Pillow(T) Wolf Creek Pillow(S) Wolf Creek Pillow(M) * Aerial N/R No Report TR Trace T = Telemetry Measurement S = Snow Tube Measurement M = Manometer Measurement	4/27 4/27 4/27 4/27 4/27 4/27	60 60 42	30.2 24.0 25.8 14.7 17.8 16.9	26.2 22.0 	20.1 23.9 9.5

SNOW		HIS YEAR			ECORD	SNOW	1	HIS YEA	R	1	RECORD
DRAINAGE BASIN ond/or SNOW COURSE	Dote of Survey	Snow Depth (In.)	Woter Cont. (in.)	Water ((Incl Last Yr.		DRAINAGE BASIN ond/or SNOW COURSE	Date of	Snow Depth	Woter Cont.	(Inc	Content (hes)
AMATTI A HALLA HALLA	Joivey	(111.7	(111.7	COST Tr.	Ave.		Survey	(ln.)	(In.)	Lost Yr.	Ave.
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS						WATERSHEDS WATERSHEDS					
Arbuckle Mountain Arbuckle Mtn. Plw.(T) Arbuckle Mtn. Plw.(S) Arbuckle Mtn. Plw.(M) Blue Mountain Camp Bowman Springs Plw.(T)	4/27 4/27 4/27 4/27 4/27 4/27 4/27	24 64 6	11.3 27.7 25.6 28.8 2.8 6.1	0.0 13.6 16.8 0.0	2.6b 11.8b 22.3 6.6b	Bald Peter Caldwell Ranch Cascade Summit Cascade Summit Plw.(S) Cascade Summit Plw.(M) Chemult Alternate Chemult Alt. Plw.(S)	N/R 4/26 4/26 5/3	e 46 66	20.7 28.5	8.0 0.0	35.5 27.4 1.8
Bowman Springs Plw.(S) Bowman Springs Plw.(M) Butte Creek Summit Emigrant Springs Emigrant Springs Plw.(S)	4/27 4/27 N/R 4/27 4/27	10 0 0	4.6 5.2 0.0 0.0	0.0	0.2 <i>b</i>	Chemult Alt. Plw.(M) Derr Derr Pillow(S) Derr Pillow(M) Hogg Pass	4/27	e e e 72	33.7	16.9	42.4
Emigrant Springs Plw.(M) High Ridge Pillow(T) High Ridge Pillow(S) High Ridge Pillow(M) Lucky Strike Lucky Strike Pillow(T) Lucky Strike Pillow(S) Lucky Strike Pillow(M) Madison Butte Pillow(M)	4/30 4/30 4/30 4/27 4/27 4/27 4/27 4/27 4/27	 66 36 16 5	29.4 32.2 28.0 16.2 8.7 6.2 9.9 2.8 0.7	18.2 2.6 4.1 0.0 0.0 0.0	27.0 25.1 <i>b</i> 7.8 3.0 <i>b</i> 5.2 <i>b</i>	Hogg Pass Pillow (T) Hogg Pass Pillow (S) Hogg Pass Pillow (M) Hungry Flat Irish-Taylor Pillow(T) Irish-Taylor Pillow(S) Irish-Taylor Pillow(M) Lionshead * Marks Creek New Crescent Lake	4/27 4/27 4/27 5/1 5/1 5/1 5/1 5/2 4/30 4/30	81 0 70 9 0	27.2 37.2 30.6 0.0 25.6 30.9 24.4 3.6 0.0 0.0	22.4 0.0 24.5 19.0 0.0 0.0	64.3 35.4 7.3 0.1 6.2
Meacham Tollgate	4/27 4/27	8 60	3.8	0.0 11.2	2.9b 20.1b	New Crescent Lake Plw.(S) New Crescent Lake Plw.(M) New Dutchman Flat #2 Ochoco Meadows	4/30 4/30	85 <i>e</i>	38.9	35.2	55.9
JPPER JOHN DAY WATERSHEDS Anthony Lake Arbuckle Mountain Arbuckle Mountain Plw.(T)	4/25 4/27 4/27	83 24	31.7 11.3 27.7	26.9 0.0	30.8 2.6b	Ochoco Meadows Plw.(S) Ochoco Meadows Plw.(M) Racing Creek Snow Mountain Snow Mountain Plw. (T)	5/2	e e 0 e	0.0	1.2	12.0
Arbuckle Mountain Plw.(S) Arbuckle Mountain Plw.(M) Blue Mountain Springs Blue Mtn. Spgs. Plw.(T) Blue Mtn. Spgs. Plw.(S) Blue Mtn. Spgs. Plw.(M)	4/27 4/27 4/25 4/25 4/25 4/25	64 39 37	25.6 28.8 14.5 19.0 15.0 20.3	13.6 16.8 4.7 	11.8b 22.3 11.1 6.8b 9.0b	Snow Mountain Plw.(S) Snow Mountain Plw.(M) Summit Lake Pillow(T) Summit Lake Pillow(S) Summit Lake Pillow(M) Tamarack	4/30 4/30 4/30	e e 78 e	28.1 32.0 27.7	28.0 30.4	40.0
Blue Mountain Summit Butte Creek Summit Derr Derr Pillow(S)	4/27 N/R	7 e. e	2.5	0.0	1.8b	Tangent Three Creek Butte Three Creek Meadow Three Creek Mdw. Plw.(T)	4/30 4/27 4/27 	12 0 19	3.2 0.0 9.5	5.1 0.0 0.5	14.7
Derr Pillow(M) Gold Center Gold Center Plw.(S) Gold Center Plw.(M)	4/27 4/27 4/27	e 16 8 	7.0 3.4 4.1	0.1 	4.5b	Three Creek Mdw. Plw.(S) Three Creek Mdw. Plw.(M) Waldo Lake Whitewater Meadow *	4/27 4/27 5/2	41 e 0	16.9	9.4	16.8
Indian Creek Butte * Izee Summit Lucky Strike Lucky Strike Plw.(T)	4/25 4/27 4/27	18 36 16	6.5 16.2 8.7 6.2	0.0 4.1 0.0	2.4 7.8 3.0b	HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS					
Lucky Strike Plw.(S) Lucky Strike Plw.(M) Marks Creek Dichoco Meadows Dichoco Mdws. Plw.(S)	4/27 4/27 4/30	0	9.9	0.0	5.2 <i>b</i> 0.1	Brooks Meadow Clear Lake Clear Lake Pillow(S) Clear Lake Pillow(M)	4/26 4/26	e 17 38	7.1 16.6	0.0	7.:
Choco Mdws. Plw.(M) Chive Lake * Choolmarm Chow Mountain	4/27 4/30	e 58 0	25.5 0.0	15.9 0.0	19.5 <i>b</i> 0.3	Clear Lake Expt. Greenpoint Greenpoint Pillow(T) Greenpoint Pillow(S)	4/26	38 e e e	16.6	0.0	11.
Snow Mountain Plw.(T) Snow Mountain Plw.(S) Snow Mountain Plw.(M) Starr Ridge Starr Ridge Plw.(S) Starr Ridge Plw.(M) Stipton Sipton Pillow(S)	4/25 4/25 4/25 4/27 4/27	e e 7 0 0 26	1.8 0.0 0.0 0.0 10.1	0.0 0.0 7.5	1.2 1.6b 6.9b	Greenpoint Pillow(M) Mt. Hood Test Site (T) Mt. Hood Test Site (S) Mt. Hood Test Site (M) Mud Ridge Pillow(T) Mud Ridge Pillow(S) Mud Ridge Pillow(M) Red Hill	4/30 4/30 4/30 4/25 4/25 4/25	139 44 	42.4 64.4 42.6 25.7 19.5 27.0	41.0 49.8 41.8 0.0 0.0	68.
Fipton Pillow(M)				10.0	5.0₺	Red Hill Pillow(T) Red Hill Pillow(S) Red Hill Pillow(M) Still Creek Switchback Tilly Jane Umbrella Falls	4/25 4/28	e e 54 e e 121	24.2	0.0	24.

SNOW	,	HIS YEAR	,	PAST R	ECORD	,	WONS	1	HIS YEA	R	PAST R	ECORD
DRAINAGE BASIN and/or SNOW COURSE	Date of Survey	Snow Depth (In.)	Woter Cont. (In.)	Woter ((Incl Last Yr.	es)		DRAINAGE BASIN and/or SNOW COURSE	Date of	Snow Depth (In.)	Wover Cont. (In.)	Woter C	nes)
LOWER COLUMBIA WATERSHED Blazed Alder Pillow(T) Blazed Alder Pillow(S)	N/R	(m.)	(m.)	Last Yr.	Ave, o		WILLAMETTE WATERSHEDS(CONT. Santiam Junction Santiam Junction Plw.(T)	4/25 4/25	19	7.0 7.7	0.0	16.2
Blazed Alder Pillow(M) Mt. Hood Test Site(T) Mt. Hood Test Site(S) Mt. Hood Test Site(M) Mud Ridge Pillow(T) Mud Ridge Pillow(S) Mud Ridge Pillow(M) No. Fork Res. (T) No. Fork Res. (S) No. Fork Res. (M) Still Creek	4/30 4/30 4/30 4/25 4/25 4/25 5/1 4/25	139 44 54	42.4 64.4 42.6 25.7 19.5 27.0 9.9	41.0 49.8 41.8 0.0 0.0 0.0	63.3 25.4 28.2 7.2	b b b b b	Santiam Junction Plw.(S) Santiam Junction Plw.(M) Seine Creek Pillow(T) Still Creek Summit Lake Pillow(T) Summit Lake Pillow(S) Summit Lake Pillow(M) Timothy Lake Valsetz Summit Vida Waldo Lake		18 54 78 23 ntinue		0.0 0.4 0.0 28.0 30.4 0.0	24.1 40.65 12.45
WILLAMETTE WATERSHEDS							Weaver Creek White Branch Slide Whitewater Birdge	4/27	0 e 0	0.0	0.0	
Cascade Summit Cascade Summit Pillow(S) Cascade Summit Pillow(M) Champion Clackamas Lake Clackamas Lake Plw.(S) Clackamas Lake Plw.(M) Clear Lake Clear Lake Pillow(S) Clear Lake Pillow(M) Clear Lake Expt. Dead Horse Grade Detroit (Town) Detroit Dam Golden Curry Creek Hogg Pass Hogg Pass Pillow(T) Hogg Pass Pillow(S) Hogg Pass Pillow(M) Jump Off Joe Pillow(T) Jump Off Joe Pillow(S) Jump Off Joe Pillow(S) Jump Off Joe Pillow(S) Marion Forks Pillow(S) Marion Forks Pillow(S) Marion Forks Pillow(M) Marys Peak McCredie Springs McKenzie McKenzie Pillow(M) McKenzie Bridge Mill City Mt. Hood Test Site(T) Mt. Hood Test Site(S) Mt. Hood Test Site(M) Oakridge Peavine Ridge Pillow(T)	4/27 4/26 4/27 4/27 4/27 4/27 4/26 4/30 4/30 	46 66 50 e e e 17 38 38 13 0 0 72 81 0 ntinue 0 0 0 70 68 e ntinue	0.0 0.0 0.0 0.0 0.1 0.0 34.5 32.2 d 42.4 64.4 42.6 0.0	0.0 0.0 0.0 0.0 16.9 17.0 22.4 0.0 0.0 0.0 0.0 19.4 41.0 49.8 41.8	14.0 1.3 42.4 7.2 48.1 68.3 63.3	Ь	King Mountain #2 King Mountain #3 King Mountain #4	5/1 5/1 5/1 4/26 4/26 4/26 4/26 4/27 4/30 5/1 4/25 4/25 4/25 4/25 4/27 4/27 4/27 4/27 4/27 4/27 4/27 4/27	e 64 0 e e e 66 54 56 61 50 47 28 0 47 22 19 11 0 29 39 e 0 0 0 0 0	29.5 0.0 16.5 8.0 13.4 7.3 22.8 25.2 23.0 22.0 12.5 11.9 0.0 20.7 9.1 5.3 0.0 15.6 16.7 14.9 0.0 0.0 0.0 0.0 0.0	43.2 5.9 5.0 6.7 37.0 31.2 12.0 26.0 22.2 8.4 10.4 26.0 27.7 0.0 0.0 0.0 0.0 0.0 0.0	45.8 7.6b 14.3
Railroad Overpass Railroad Overpass Plw.(S) Railroad Overpass Plw.(M) Saddle Mtn. Pillow (T) Saddle Mtn. Pillow(S) Saddle Mtn. Pillow(M) Salt Creek Falls Salt Creek Falls Plw.(S) Salt Creek Falls Plw.(M)	4/26 4/26 N/R 4/24 4/26 4/26	0 0 22 41	0.0 0.0 0.0 0.0 8.8 17.1	 0.0	12.9		King Mountain #6 Little Red Mountain Mt. Ashland Switchback Mule Creek North Umpqua Page Mountain Park Headquarters	4/26 4/26 5/1 5/1	e 60 0 0 e 95	24.3 0.0 0.0 44.8	33.5 0.0 0.0 55.6	37.1. 2.8. 7.3 63.7

SNOW		HIS YEA		PAST R		2	WON.		HIS YEA		PASTR	
ORAINAGE BASIN and/or SNOW COURSE	Oate of Survey	Snow Oepth (In.)	Water Cant. (In.)	(Inch	es)		ORAINAGE BASIN and/ar SNOW COURSE	Oate af Survey	Snow Depth (in.)	Water Cont. (In.)	Water C (Inch	nes)
ROGUE, UMPQUA WATERSHEDS(CO	NT.)					Ī	LAKE COUNTY, GOOSE LAKE					
Red Butte #1 Red Butte #2 Red Butte #3 Red Butte #4 Red Butte #5 Red Butte #6 Seven Mile Seven Mile Pillow(S)	4/26 4/26 4/26 4/26 4/26 4/26	0 0 0 0 0 0 0 0 0	0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0	13.8 5.5 1.0 		WATERSHEDS Adin Mountain (Calif.) Bald Mountain (Nev.) Bear Flat Meadow * Camas Creek #1 Camas Creek #2 Cedar Pass (Calif.) Colvin Creek *	4/27 4/26 4/26 4/27	18 e 2 7 43 e	8.1 0.8 2.9 19.6	0.0 2.4 16.7	3. 14.
Seven Mile Pillow(M) Silver Burn Siskiyou Summit Ski Bowl Road South Fork Canal Trap Creek	4/30 4/25 4/26 5/1 5/1	0 0 44 0 0	0.0 0.0 16.8 0.0	0.0 0.0 23.6 0.0	3.5 26.0 5.8		Cox Flat * Crowder Flat (Calif.) * Dismal Swamp (Calif.) * Finley Corrals * Hart Mountain * Little Bally Mtn.(Nev.) * Mt. Bidwell (Calif.)	4/26	e e 22 e e	9.0	6.0	8.
KLAMATH WATERSHEDS Annie Spring Billie Creek Divide Billie Cr. Div. Plw.(T) Billie Cr. Div. Plw.(S) Billie Cr. Div. Plw.(M) Chemult Alternate Chemult Alternate Plw.(S)	5/1 4/26 4/26 4/26 4/26 5/3	64 66 54 0	29.5 16.5 8.0 13.4 7.3 0.0	43.2 5.9 5.0 6.7 0.0	45.8 14.3 4.3 4.3 1.8		North Star (Calif.) Patton Meadows * Quartz Mountain Quartz Mountain Plw.(S) Quartz Mountain Plw.(M) Rogger Meadows * Sherman Valley * Silver Creek Silver Creek Pillow(S)	4/26 4/26 4/26 4/26 4/26	27 0 0 0 e e e e	11.1 0.0 0.0 0.0 0.0	13.2	13.
Chemult Alternate Plw.(M) Chiloquin (PP&L) Cold Springs Camp Cold Spgs. Camp Plw.(T) Cold Spgs. Camp Plw.(S) Cold Spgs. Camp Plw.(M) Crazyman Flat * Crowder Flat (Calif.) * Crystal (PP&L) Diamond-Crater Summit Dog Hollow *	4/30 4/30 4/30 4/26 4/25	28 10 e 47 e	22.0 12.5 11.9 4.1	26.0 13.2 16.0 4.0	35.7 38.3 5.9	b	Silver Creek Pillow(M) State Line (Calif.) * Strawberry Strawberry Pillow(S)	4/28 4/28 4/28 4/26	0 0 32 e e e	0.0 0.0 0.0 13.1	0.0	2.
Finley Corrals * Fort Klamath (PP&L) Fourmile Lake Fourmile Lake Pillow(T) Fourmile Lake Pillow(S) Fourmile Lake Pillow(M) Gerber Harriman (PP&L) Howard Prairie Hyatt Prairie Reservoir Hyatt Prairie Res.Plw.(S)	4/26 4/27 4/27 4/27 4/27 5/1 5/1 5/1	22 e 29 39 e e 0	9.0 13.0 15.6 16.7 14.9	6.0 10.4 26.0 27.7	8.8 21.9 16.6 15.3 2.6 3.4	<i>b b b</i>	HARNEY BASIN WATERSHEDS Blue Mountain Springs Blue Mtn. Spgs. Plw.(T) Blue Mtn. Spgs. Plw.(S) Blue Mtn. Spgs. Plw.(M) Buck Pasture * Buckskin Lake * Call Meadows * Delintment Lake Denio Creek *	4/25 4/25 4/25 4/25 4/25	39 37 e e e	14.5 19.0 15.0 20.3	4.7	11.69
Hyatt Prairie Res.Plw.(M) Kirk (PP&L) Park Headquarters Quartz Mountain Quartz Mtn. Pillow(S) Quartz Mtn. Pillow(M) Seven Mile Seven Mile Pillow(M) State Line (Calif.) * Strawberry Strawberry Pillow(M) Summer Rim * Summer Rim	5/1 4/26 4/26 4/26 4/26 4/28 4/28 4/28 4/28 4/28	95 0 0 0 32 e	44.8 0.0 0.0 0.0 0.0 0.0 0.0 13.1	0.0	2.4		Disaster Peak (Nev.) Emigrant Butte Fish Creek * Fish Creek Fish Creek Pillow(S) Fish Creek Pillow(M) Hart Mountain * Idlewild Camp Alt. Izee Summit Lake Creek R.S. Lake Creek R.S. Plw.(T) Lake Creek R.S. Plw.(S) Lake Creek R.S. Plw.(M) Oregon Canyon * Rock Spring	5/1 4/25 4/26 4/26 4/26 4/26	e e e e e e e e 18 7 14 e 0	0.0 6.5 2.6 5.6 4.7 3.7	0.0	0 2 3 0
Summer Rim Pillow(T) Summer Rim Pillow(S) Summer Rim Pillow(M) Sycan Flat * Taylor Butte Taylor Butte Pillow(T) Taylor Butte Pillow(S) Taylor Butte Pillow(M)	4/26 4/26 4/26 4/26	0 0	0.0 0.0 0.0		0.6	Ъ	Rock Spring Pillow(S) Rock Spring Pillow(M) Silvies * Silvies	4/26 4/26 4/26 4/25 4/25 4/25 5/1	0 e e e e e e e e	1.8 0.0 0.0	0.0	1 -

MAY 1, 1979

1102	MO	ICTI	IDE
71111	MILL		ıĸr

				Date of		Moisture (In	
N ame	Elevation	Depth	Capacity	Survey	This Year	Last Year	Average
OWYHEE, MALHEUR WAT	ERSHEDS						
Bear Creek (Nev.)	7890	72	16.8	Discontinu	ıed		
Big Bend (Nev.)	6700	48	16.7	Discontin			
Blue Mountain Spring	5900	42	16.9	4/25/79	12.5		12.4
Mud Flat (Ida.) Rodeo Flat (Nev.)	5500 6800	48 42	12.8 11.0	Discontinu Discontinu			
Taylor Canyon (Nev.)	6200	48	15.1	Discontin			
BURNT, POWDER, PINE, GRANDE IMNAHA WATERSHEDS	RONDE,		•				
Blue Mountain Summit	5100	36	16.8	4/27/79	15.0	16.0	15.0
Dooley Mountain Emigrant Springs	5430 3925	36 48	9.2 22.3	4/26/79 5/2/79	6.7 20.9	7.6 19.6	6.4
Ladd Summit	3730	48	18.9	4/26/79	13.8	13.2	11.8
Moss Springs	5850	36	25.8	4/27/79	16.6	14.4	15.7
Tollgate	5070	48	23.6	4/27/79	16.5	17.4	18.3
UMATILLA, WALLA WALLA, WILLO LOWER JOHN DAY WATERSH							
Battle Mountain Summit	4340	48	13.8	5/2/79	13.5	13.5	13.3
Emigrant Springs	3925	48	22.3	5/2/79	20.9	19.6	20.7
Tollgate	5070	48	23.6	4/27/79	16.5	17.4	18.3
UPPER JOHN DAY WATERSH	EDS						
Battle Mountain Summit	4340	48	13.8	5/2/79	13.5	13.5	13.3
Blue Mountain Spring Blue Mountain Summit	5900 5100	42 36	16.9 16.8	4/25/79 4/27/79	12.5 16.0	12.6 16.0	12.4
Derr	5670	24	9.0	4/2///9 e	10.0	10.9	15.0
Marks Creek	4540	36	14.1	4/30/79	11.7	12.4	13.0
Snow Mountain	6300	48	16.7	e 4 (05 (70	10.6	10.6	10.4
Starr Ridge	5150	36	10.6	4/25/79	10.6	10.6	10.4
UPPER DESCHUTES, CROOKED WA	TERSHEDS						
Derr	5670	24	9.0	e			
Marks Creek	4540 6300	36 48	14.1	4/30/79	11.7	12.4	13.0
Snow Mountain	6300	40	10.7	e			
KLAMATH WATERSHEDS							
Quartz Mountain	5230	48	15.3	4/26/79	8.4	9.9	9.4
LAKE COUNTY, GOOSE LAKE WA	TERSHEDS						
Camas Creek Quartz Mountain	5720 5230	42 48	14.5 15.3	4/26/79 4/26/79	13.0 8.4	12.3 9.9	12.7
Quartz Pountain	5230	40	10.5	7/20//3	0.4	9.9	3.4
HARNEY BASIN WATERSHE							
Blue Mountain Spring	5900 6000	42 48	16.9	4/25/79	12.5	12.6	12.4
Silvies Snow Mountain	6900 6300	48 48	16.4	e			
Starr Ridge	5150	36	10.6	4/25/79	10.6	10.6	10.4
Willow-Bald	5000	24	6.6	No Report		6.6	6.0

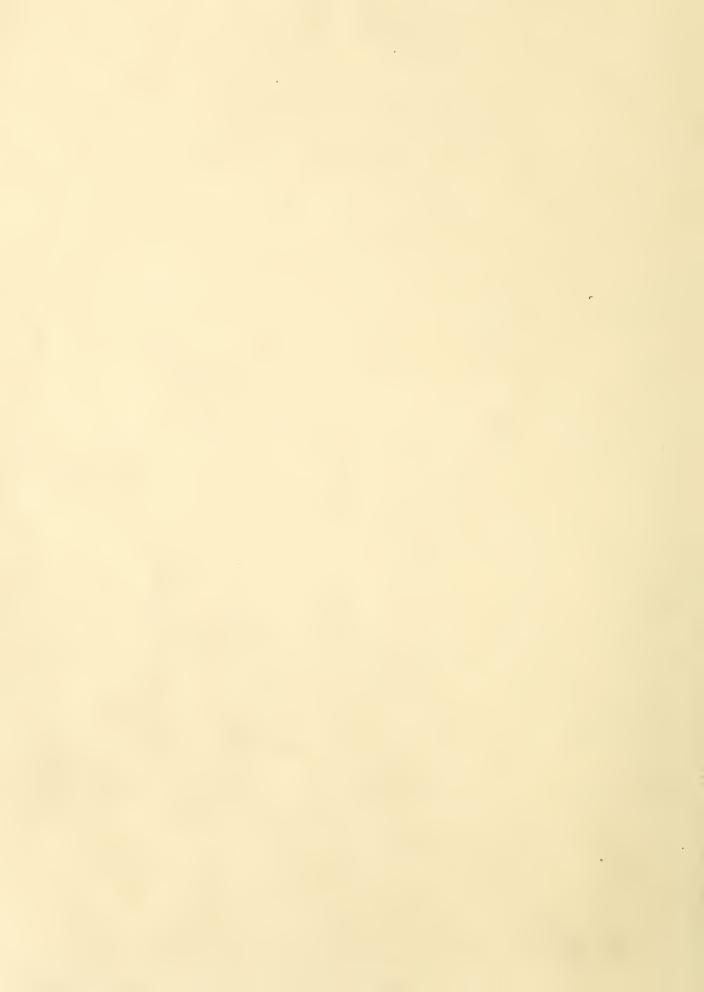
(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

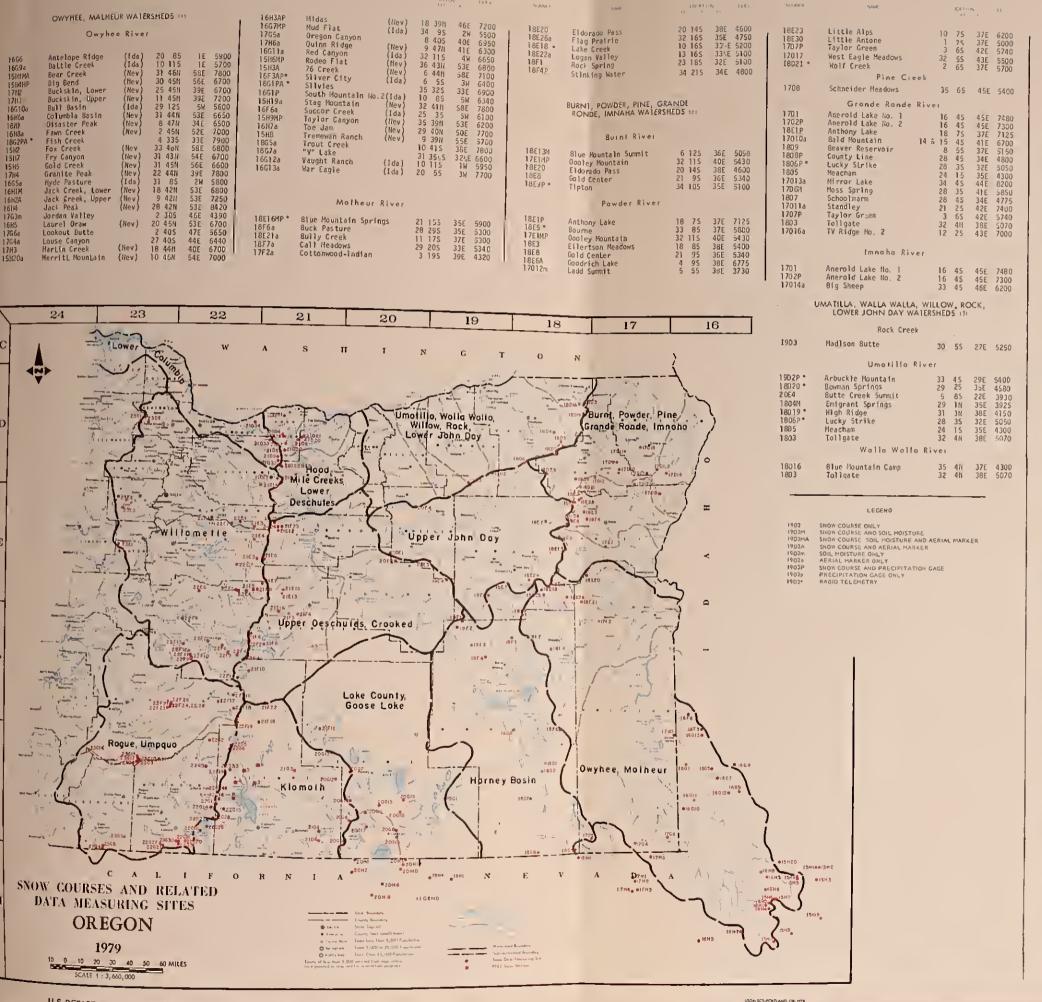
ECIPITATION (Inches)		CURRENT IN	FORMATION	PAST RECORD		
DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	Date of Reading	Precip- itation	Last Year	Average	
Arbuckle Mountain (Morrow County)	5400	From 4/1 To 4/27	5.50"			
Beaver Reservoir (Union County)	5150	From 3/28 To 4/30	4.80"			
Billie Creek Divide (Jackson County)	5310	From 3/26 To 4/26	7.92"			
Blue Mt. Springs (Grant County)	5900	From 3/28 To 4/25	3.50"			
Bourne (Baker County)	5800	From 4/3 To 4/27	2.40"			
Bowman Springs (Union County)	4580	From 4/1 To 4/27	4.75"			
Cascade Summit (Lane County)	4880	From 3/30 To 4/26	9.00"			
Clear Lake (Wasco County)	3500	From 3/27 To 4/26	7.32"			
Cold Springs (Klamath County)	6100	From 3/30 To 4/30	7.20"			
County Line (Umatilla County)	4800	From 3/30 To 4/39	5.40"			
Eilertson Meadow (Baker County)	5400	From 4/3 To 4/27	1.92"			
Emigrant Springs (Umatilla County)	3925	From 3/29 To 4/27	6.24"			
Fish Lake (Jackson County)	4665	From 3/26 To 4/26	9.00"			
Fourmile (Klamath County)	6000	From 3/30 To 4/27	5.40"			
Gold Center (Grant County)	5340	From 4/3 To 4/27	2.28"			
High Ridge (Umatilla County)	4150	From 4/2 To 4/30	4.44"		,	
Hogg Pass (Jefferson County)	4755	From 3/27 To 4/27	11.16"			
Irish-Taylor (Deschutes County)	5500	From 3/29 To 5/1	9.72"			
Jump Off Joe (Linn County)	3400	From 3/27 To 4/25	11.76"			
Lake Creek (Grant County)	5120	From 3/29 To 4/26	1.92"			
Lucky Strike (Umatilla County)	5050	From 4/1 To 4/27	8.25"	ł		
Madison Butte (Morrow County)	5250	From 4/1 To 4/27	4.32"			

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PRECIPITATION (Inches)		CURRENT IN	FORMATION	PAST R	ECORD
DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	Date of Reading	Precip- Itation	Last Year	Average C
Marion Forks (Linn County)	2730	From 3/2/ To 4/27	11.28"		
Marks Creek (Crook County)	4540	From 3/27 To 4/30	3.7"		
Moss Springs (Union County)	5850	From 4/4 To 4/27	8.64"		
Mud Ridge (Clackamas County)	3800	From 3/29 To 4/25	9.72"		
New Crescent Lake (Klamath County)	4800	From 3/30 To 4/30	6.0"		
Railroad Overpass (Lane County)	2750	From 3/30 To 4/26	8.76"		
Rock Springs (Grant County)	5100	From 3/29 To 4/26	3.24"		
Salt Creek Falls (Lane County)	4000	From 3/30 To 4/26	9.00"		
Santiam Junction (Lane County)	3750	From 3/27 To 4/27	9.60"		
Schneider Meadows (Baker County)	5400	From 4/5 To 4/27	2.52"		
Starr Ridge (Grant County)	5156	From 3/28 To 4/25	3.96"		
Strawberry (Lake County)	5760	From 3/29 To 4/28	1.80"		
Summit Lake (Klamath County)	5600	From 3/30 To 4/30	8.76"		
Taylor Green (Baker County)	5740	From 4/5 To 4/27	3.84"		
Three Creek Meadows (Deschutes County)	5650	From 3/28 To 4/27	2.52"		
Tipton (Baker County)	5100	From 4/3 To 4/27	2.28"	į	
Wolf Creek (Union County)	5700	From 4/3 To 4/27	1.68"		

(a) Estimated. (b) 1963-77 adjusted average. (c) 1963-77, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.





Ni July e v	158		10000		
	Willow Creek				
1902P*					
18E1P	Arbuckle Mountain Anthony Lake	33 18	4S 7S	29E 37E	5400 7125
	UPPER JOHN DAY WATER	HED	S 41		
	Upper John Day 81	vei			
1902P*	Arbuckle Hountain Blue Mountain Springs Blue Mountain Surmit Butte Creek Surmit Oerr Gold Center Indian Cr. Butte Izee Surmit Lucky Strike Marks Creek Ochoco Meadows Olive Lake Schoolmarm Show Mountain Starr Ridge Inpton UPPER DESCHUIES, CROOKED	33	45	29E	5400
18E13M	81ue Mountain Springs	21	155	35E	5900
20E4	Butte Creek Summit	5	85	36F 22E	3930
18E8	Gold Center	14	135	23E	5670
18E24a	Indian Cr. Butte	5	155	33E	6550
1806P *	Lucky Strike	28	165 35	29E 32E	5293 505u
20E1MP 20E2	Marks Creek Ochoco Meadows	25	125	19E	4540
18E7a	Olive Lake	14	95	34E	6000
19F1*	Snow Mountain	28	195	34E 26E	4775 6220
18E9p •	Starr Ridge lipton	20	155	31F 3508	5150
	UPPER DESCHUTES, CROOKED	WAI	ERSHE	DS -	1
	Upper Daschutes R				
21 E 2 2				9E	5400
21E22 21F8 22F3	Caldwell Ranch	30	215	BE	4400
21F 22	Chemult Alt.	21	275	6E 8E	4880 4760
21F4	Mogg Pass Hungry Flat	24	135	7'-E	4755
21F6*	Irish-Taylor	25	205	6E	5500
21F10	Hew Crescent Lake	11	245	8E 6E	5400 4800
21E16 21E23	New Outchman Flat #2 Racing Creek	21 15	185	9E 9F	6400 4800
22F14*	Summit Lake	33	245	S'E	5600
21E15	Bald Peter Caldwell Ranch Cascade Summit Chemult Alt. Mogg Pass Hungry Flat Irish-Taylor Lionshead Hew Crescent Lake Hew Outchman Flat *2 Racing Creek Summit Lake langenL Ihree Creeks Butte Innee Creeks Mejdows Waldo Lake Whitewater Headow	27	16\$	9E	5200
21E13°	Inree Creeks Mesdows Waldo Lake	34 15	16S 21S	9E 6F	5650 5600
21F24a	Whitewater Headow	17	105	9E	4160
£10246					
210246	Crooked River				
19E3MP	Crooked River	14	135		5670
19E3MP 20E1MP 20E2	Crooked River	14 25		19E	4540
19E3HP 20E1MP 20E2 19F1* 19E4	Oerr Marks Creek Ochoco Meadows Snow Mountain Tamarack , MILE CREEKS, LOWER DESCH	14 25 21 1 8	13S 12S 13S 19S 19S	19£ 20E 26E 25E	4540 5200 6220 4800
19E3HP 20E1MP 20E2 19F1* 19E4	Crooked Rivel Oerr Marks Creek Ochoco Meadows Snow Mountain Tamarack	14 25 21 1 8	13S 12S 13S 19S 19S	19£ 20E 26E 25E	4540 5200 6220 4800
19E3HP 20E1MP 20E2 19F1* 19E4	Crooked River Derr Marks Creek Ochoco Meadows Snow Mountain Tamarack , MILE CREEKS, LOWER DESCH	14 25 21 1 8	13S 12S 13S 19S 15S	19E 20E 26E 25E ERSHE	4540 5200 6220 4800 D5 15
19E3HP 20E1MP 20E2 19F1* 19E4	Crooked River Derr Marks Creek Ochoco Meadows Snow Mountain Tamarack , MILE CREEKS, LOWER DESCH	14 25 21 1 8	13S 12S 13S 19S 15S WATI	19E 20E 26E 25E ERSHE	4540 5200 6220 4800 D5 15
19E3HP 20E1MP 20E2 19F1* 19E4	Crooked River Derr Marks Creek Ochoco Meadows Snow Mountain Tamarack , MILE CREEKS, LOWER DESCH	14 25 21 1 8	13S 12S 13S 19S 15S WATI	19E 20E 26E 25E ERSHE	4540 5200 6220 4800 D5 15
19E3MP 20E1MP 20E2 19F1 • 19E4 HOOD 2106P 21010 • 21020 2108 • 2104 • 2104 •	Crooked Rivel Oerr Marks Creek Ochoco Meadows Snow Mountain Tamarack , MILE CREEKS, LOWER DESCHI Hood Rivor Brooks Meadows Greenpoint Reservoir Knebal Springs Ht. Hood Test Site Red Hill SLill Creek	14 25 21 1 8 UIES	13S 12S 13S 19S 15S WATI	19E 20E 26E 25E 25E 10E 9E 11E 9E 9E 8'-1	4540 5200 6220 4800 D5 15 4300 3200 3850 5400 £ 3670
19E3HP 20E1MP 20E2 19F1 • 19E4 HOOD 21D6P 2101 • 21020 2108 • 2104 • 2104 • 2109 21028	Crooked River Derr Marks Creek Ochoco Meadows Snow Mountain Tamarack , MILE CREEKS, LOWER DESCHI Hood Rivor Brooks Meadows Greenpoint Reservoir Knebal Springs Ht. Hood Test Site Red Hill SLill Creek Switchback	14 25 21 1 8 8 UIES	13S 12S 13S 19S 15S 15S 2S 2N 1S 3S 1S 1S	19E 20E 26E 25E 25E 10E 9E 11E 9E 9E 9E 9E	4540 5200 6220 4800 D5 15 4300 3200 3850 5400 4400 8 3670 3255
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19E3MP 20E1MP 20E2 19F1* 19E4 HOOD 21D6P 2101* 21020 2104* 2104 21028 21078	Crooked Rivel Oerr Marks Creek Ochoco Meadows Snow Mountain Tamarack , MILE CREEKS, LOWER DESCHI Hood Rivor Brooks Meadows Greenpoint Reservoir Knebal Springs Mt. Hood Test Site Red Hill Still Creek Swilchback Tilly Jane Ulrich Ranch Junction	25 21 1 8 UIES 27 31 7 20 25 28 15 28 3	13S 12S 13S 19S 15S 15S WATI	19E 20E 26E 25E 25E 10E 9E 11E 9E 9E 9E 11E	4540 5200 6220 4800 D5 15 4300 3200 3850 5400 4400 255 6000 3350
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21E6 ° 22E7 ° 21E4 22E3 21E5 ° 21E3	Hogg Pass Jump-Off-Joe Marion Forks Mill City Santiam Junction Whitewater Bridge McKenzie Rive	24 13 1 14 29 11 29 9 14 13 20 16	S	3400 3400 3600 326 3750 2175	2166a 20614a 22612 * 2164P 22626 22616	Oog Hollow Finley Cornals Fournite Lake Gerber Howard Prairie Hyatt Prairie Res	ervoir	1 11 9 12 32 15	405 365 365 395 385 395	16L 5L 13E 4E 3L	6000 6000 4850 4500 4900
	Oead Horse Grade Lost Creek Ranch Hotenzie Mckenzie Bridge Vida White Branch Slide			3700 1956 L 4800 1372 800 2700	22615 22654P 22611 22633 2014 a 20624P 20624P	Oog Hollow Finley Courals Fournile Lake Gerber Howard Prairie Hyatt Prairie Res Lake of the Moods Park Headquarters Quartz Mountain Seven takes No. 2 Seven Mile State Line State Line Strasborry Summer Rim Sycan Flat Taylor Butte	(Cal)	26 20 21 4 23	J75 J15 J85 J35 J35 48N 405 J35	68 16L 5L 6L 11C 16E 16E	5756 5766 210
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	Mory's River Mary's Peak Lucklamute River	21 12			20G15a 20G8MP 20G11A 2017a 2017a 2067 /a	Bear Flat Headew Camas Creek Cox Flat Crowder Flat Olsmal Swamp Patton Readow Quartz Mountain Rogger Meadow State Line Strumborry	(Cal) (Cal)	27 5 16 30 31	365 395 375 47N 48N	19E 21I 18E 11E 16I	590t 5720 5750 520t 720t
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23G4P	Rague River	17 41	S 71/	4510	20G10a	Snorman Valley		15	365	16L 21L	
22G6 22G28 22G21P 22G13P • 22G30	Annie Spring Beaver Dam Crcel Dig Red Mountain Billie Crcek Divide Caliban	19 31 1 38 31 40 30 36 16 40	S 6L S 4E S 18 S 5E S 1E	6018 5100 6250 5300 6500		Summer Rim	r Lake				710
22G27 22F19 22G14P 22G12 * 23G3 22G26	Deadwood Junction Olamond-Crater Summit Fish Lake Foundile Lake Grayback Peak Moward Prairie	8 38 3 29 3 37 9 36 9 40 32 38	\$ 4E \$ 6E \$ 4E \$ 5E \$ 5W \$ 4L	4600 5800 4665 6000 4500		Silver Creek Sycan Flat Worke	25 A				
22G16 22G22 22G31 23G14 23G5 22G5	Rogue Rive: Althouse Annie Spring Beaver Dam Creek Big Red Mountain Billie Creek Divide Caliban Deadwood Junction Olamond-Crater Summit Fish take Foundile Lake Grayback Peak Moward Prairie Hyatt Prairie Reservoir Little Red Mountain Mt. Ashland Switchback Mule Creek Page Mountain Park Headquarters Seven Lakes Mo. 2 Silver Burn Stalling Scannie	15 39 25 40 15 40 6 32 5 41 8 31	5 3E S 2H S 1E S 9H S 7H S 6E	4900 6500 6400 3680 4045 6550	2068MP 2043a 1961a 20610a	Comas Greek Olsmal Swamp Hart MonnLain Sherman Valley	(Cs1)	5 31 1 15	395 48N 365 375	21L 16E 25f 21E	572 720 635 660
22G11 22G2 22G20	Seven Lakes Mo. 2 Silver Burn	26 33 30 30 17 40	5 5E S 4E S 2E	6200 3720 4630		Guan	Lake				
22632 2269	Siskiyou Surmit Ski Bowl Pood South Fork Canal	22 40 12 33	S 1E	6000 3500	1981 1961a 1984a	Bald Hountain Hart Hountain Hittle Bally Mt. HARNEY BASI	(Hev)	l U	45ft 365 45ft		672 635 660
2259	Umpquo River Champion	12 23	s 1e	4500		Silvies River	- Silve	ı C	iook		
22F18P 23G8 23G9 23G10 23G11 23G12 23G13 22F16 22F23	Ofamond Lake King Mountain No. 1 King Mountain No. 2 King Mountain No. 3 King Mountain Ho. 4 King Mountain Mo. 5 29 I	29 27 5 33 4 33 33 32 33 32 28 32 20 32 19 26 36 27	S 6E S 4H S 4H S 4W S 4W S 4W S 4W S 6E	5315 4500 4000 3648 3049 2380 1820 4215 4560	18F7a 19F2 19F3 18F3P 19L9P 18F1 19F1* 19E7M 18F4P	Call Mendows Dellinment Lake Emigrant Butte Idlewild Camp lace Surmit Rack Spring Snow Mountain Starr Ridge Stinking Water			205 195 213 205 165 185 194 155 215	26E 31E	5340 5600 5200 5293 5100 6220 5150 4800
22F24 22F25	Red Butte No. 2 Red Butte No. 3	30 27 30 27	5 1H 5 1H	4000 3500		Donner Und	Biltzen	Riv	61		
22F26 22F27 22F28 22F17	Red Butte Ho. 5 Red Butte Ho. 5 Red Butte Ho. 6 Trap Creek	30 27 20 27 17 27 1 27	S 1W S 1W	3000 2500 2000 3800	18F6n 18G2PA * 19G1a 18G1PA *	Buck Pasture Fish Creek Bart Mountain Silvies		28 4 1 35	295 335 365 325	35L 33L 25L 33L	6900
	KLAMATH WATERSHEDS	5			1867a	"Y" Lake Trout and Wh	iteharse	31 Çı		32 'Æ	5600
22G6 22G13P • 21F22 22G24•	Annie Spring Billle Creek Dlvide Chemult Alt.	19 31 30 36 21 27 12 35	S 5E S 8E	6018 \$300 4760 6100	1866a 1881 1765a 1865a	Oenio Creek Oisaster Peas Oregan Canyon Trout Creek	(Nev)		415 47H 405 415	34£ 34£ 40£ 38L	6000 6500 6950 7800
20G12a 20H2a 22F19 21F18	Crazyman Flat Crowder Flat Clamond-Crater Surmit Diamond Lake Jct. (97)	9 34	S 15E H 11E S 6E	6100 5200 5800 4600	1858a	Horney Buckshin Lake		25	295	30E	520
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The Following Organizations Cooperate in the Oregon Snow Survey Work

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